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LEE, HONG, DEGERMAN, KANG & SCHMADEKA, P.C. 801 SOUTH FIQUEROA STREET 14TH FLOOR LOS ANGELES, CA 90017			MAIS, MARK A	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/836,662

Applicant(s)

KIM, HYUN JOON

Examiner

Mark A. Mais

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102/103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kung et al. (USP 6,728,239).

Art Unit: 2664

5. With regard to claim 1, Kung et al. discloses a network connection apparatus **[Fig. 4, CPE 102, of the integrated broadband IP based communication system, col. 21, lines 55-56]** comprising:

an internet phone main unit **[Fig. 3, broadband residential gateway 300]** as an ordinary telephone or an internet phone in accordance with an operation of a user **[Fig. 4, broadband residential gateway 300 has both PSTN and internet phone capability, col. 21, lines 12-21];**

a function extending unit for interfacing function packs performing an independent function respectively with a network CPU unit **[Fig. 3, peripheral ports module 342 for providing connectivity to external peripherals, col. 18, lines 15-16];** and

the network CPU unit **[Fig. 3, processing controller 306]** for controlling an audio signal communicated through a PSTN **[col. 16, lines 28-37]** and controlling a signal received from a network by controlling the internet phone main unit and function extending unit **[col. 16, lines 37-41]**.

6. With regard to claim 2, Kung et al. discloses an internet phone main unit comprises:

a LCD module for displaying a telephone number and control information **[Fig. 3, display 338, col. 19, lines 47-52];**

a keypad module for inputting a telephone number and information **[Fig. 3, interactive display 338, col. 19, lines 55-61];**

a codec module for modulating an audio signal inputted from outside **[voice CODEC included in intercom module (IM) 344 of Fig. 3, col. 18, lines 21-22, and 30-39; see also col. 23, lines 59-64];**

Art Unit: 2664

a speaker module for inputting and outputting audio [Fig. 3, IM module 344, col. 18, line 22 (speakers)] ; and

a transceiver module for communicating with another person [Fig. 3, transceiver 302 for communication with other networks, and therefore, with other people, col. 17, lines 18-20].

7. With regard to claim 3, Kung et al. discloses a network CPU unit comprises

a network CPU module [Fig. 3, processing controller 306] for controlling/executing a signal inputted/outputted from/to the PSTN or network [col. 18, processing controller 306 can handle all functions, and, therefore, can handle all POTS and network signaling, col. 18, lines 61-63];

a PSTN module for detecting a ring signal inputted from the PSTN [Fig. 4, peripheral port processor 308 performs call functions, interpreted as inherently at least a ring signal, col. 19, lines 4-6, when utilizing POTS, col. 16, lines 30-34];

converting an analog audio signal inputted from outside into a digital signal (PCM), and transmitting it to the network CPU module [voice CODEC included in intercom module (IM) 344 of Fig. 3, col. 18, lines 21-22, and 30-39; *see also* col. 23, lines 59-64, which discloses PCM conversion];

a memory module for storing a file and an application code for executing a signal inputted to the network CPU unit [memory integrated into the processing controller 306, memory 322, program store 330 or peripheral port processors, col. 19, lines 23-42];

a PCI module for arbitrating various devices installed to slots of the function extending unit and data **[there must inherently be PCI controller to arbitrate more than one PCI compatible device on a PCI bus, col. 18, line 17; see also bus 360 includes any suitable interconnect bus, col. 17, lines 38-42]; and**

a USB module for making extension/connection with a peripheral device easily **[there must inherently be a USB controller to arbitrate more than one USB device, col. 18, line 17].**

8. With regard to claim 4, Kung et al. discloses that the memory module comprises:

a ROM unit for storing data for initializing a state of the network CPU module **[col. 19, lines 23-28];**

a RAM unit for storing an application program for executing data transmitted to the network CPU module **[col. 19, lines 23-28]; and**

a unit for improving execution speed of the network CPU module and communication execution speed **[peripheral processors 310 (P2 Data), 312 (P3 Video), 314 (P4 Aux.), 316 (P5 IP), and 318 (OA &M) under the control of processing controller 306 (col. 18, line 65 to col. 19, line 1) can take up tasks from processing controller 306 to free up processing power (e.g., 314, (P4 Aux.) performs special processing functions such as numeric processing (col. 19, lines 13-15)].**

Art Unit: 2664

9. With regard to claim 5, Kung et al. discloses that the network CPU module converts a signal inputted from the PSTN into a packet format [**voice CODEC included in intercom module (IM) 344 of Fig. 3, col. 18, lines 21-22, and 30-39; see also col. 23, lines 59-67, which discloses PCM conversion, and conversion to IP packets potentially encapsulated in DOCSIS**], adapts a protocol corresponding to a pertinent IP phone [*See Id.*], performs routing in data transmission [**internally multiplexes/de-multiplexes multiple incoming/outgoing data, col. 16, lines 38-41**], and controls/executes a signal related to each PCI pack [**e.g., peripheral processor 310 (P2 Data) may include management functions such as coordination/distribution of data within various devices via interconnect bus 360**]].

10. With regard to claim 6, Kung et al. discloses that the PCI module [**there must inherently be PCI controller to arbitrate more than one PCI compatible device on a PCI bus, col. 18, line 17; see also bus 360 includes any suitable interconnect bus, col. 17, lines 38-42**] can directly input/output a packet [**packets**] to each function pack [**peripherals connected to peripheral port module 342 are disk drives, disk storage, VCR, DVD, Audio, video devices, etc., col. 16, line 66 to col. 17, line 4**] of the function extending unit [**via interconnect bus 360**], accordingly, allowing the PCI module to be both master and a target at the same time [**inherent, e.g., it can send camcorder data to all digital video recorders at the same time**]].

11. With regard to claim 7, Kung et al. discloses that the network CPU unit contacts to the network using a real-time operating system [**DOCSIS and any other future protocol that strengthens TCP/IP, col. 23, line 64 to col. 24, line 8**]].

12. With regard to claim 8, Kung et al. discloses that the function extending unit **[Fig. 3, peripheral ports module 342 for providing connectivity to external peripherals, col. 18, lines 15-16]** is constructed with a plurality of slots for inserting various function packs **[it is inherent that the number of slots (i.e., slot space or interfaces) can increase or decrease according to space, structure, time- and cost-constraints]**.

13. With regard to claims 9, 11 and 12, Kung et al. discloses that the function extending unit **[Fig. 3, peripheral ports module 342 for providing connectivity to (different-functioning/protocol) external peripherals, col. 18, lines 15-16]** comprises:

a network interface pack **[transceiver 302, col. 17, lines 59-61]** for transmitting data inputted from an internet leased-line to the other function pack or the network CPU **[col. 18, processing controller 306 can handle all functions, and, therefore, can handle all POTS and network signaling, col. 18, lines 61-63];**

a wireless LAN pack **[Fig. 3, wireless interface module 345]** for constructing a network with each terminal wirelessly **[wireless TVs, phones, LANs, col. 17, lines 6-9] ;**

an IEEE 1394 pack for connecting directly to a peripheral device having wide data transmission bandwidth **[IEEE 1394 or firewire (col. 18, line 17) inherently connect to devices with wide data transmission bandwidths such as, for example, disk drives, disk storage, VCR, DVD, Audio, video devices, etc., col. 16, line 66 to col. 17, line 4];**

Art Unit: 2664

a graphic-sound pack for displaying a graphic and an audio inputted from a communication cable or a network [Fig. 3, TV Port Module 336 for displaying cable television, col. 16, lines 28-30 and 59-61];

an extension graphic-sound pack for decreasing load of a CPU for outputting a graphic/audio in execution of a higher graphic and sound program [Fig. 3, peripheral processor 312 (P3 Video) includes video processing functions, col. 19, lines 9-13]; and

an additional CPU pack for performing a large scale program which is difficult to perform with the network CPU module [Fig. 3, peripheral processor 314, (P4 Aux.) performs special processing functions such as numeric processing (col. 19, lines 13-15)].

14. With regard to claim 10, Kung et al. discloses that the additional CPU pack can operate as an independent PC [each processor may be an entirely separate processing unit with it's own RAM, ROM and flash memory, col. 19, lines 23-26; multiple PCs connected to gateway 300; and gateway 300 may also be divided into more than one physical package, col. 22, lines 2-7], and comprises a power button for saving power and a reset button in preparation for correcting operation of a CPU [it is inherent that a PC has both power and reset buttons].

15. With regard to claim 13, Kung et al. discloses that the network connection apparatus has a miniaturized size through combining common parts used in each function pack of the function extending unit into one unit [It is inherent that miniaturization or, rather, compactness of components can be accomplished by combining common parts, such as, for example, memory (col. 19, lines 25-31). Moreover, Applicants have not disclosed that miniaturizing

Art Unit: 2664

the apparatus solves any stated problem or is for any particular purpose. It appears that the performance of the apparatus would result equally well regardless of the modification of size. Recall that modifications are considered a mere design choice consideration, which fails to patentably distinguish over the prior art. In addition, combining known parts to “miniaturize” size by wrapping it into one unit is interpreted as an optimum value for a known process. A discovery of an optimum value for a known process is obvious engineering. See In re Aller, 105 USPQ 233 (CCPA 1955).]

16. With regard to claims 14 and 15, Kung et al. discloses a network connection method comprising:

setting up a call when an audio signal is transmitted from outside through a PSTN/IP network **[call from PSTN phone coming through CPE 102];**

sampling the transmitted analog audio signal with a PCM digital signal in the PSTN **[digitized signal using PCM and then packetized into IP, col. 23, lines 59-64];**

determining whether the call has a wired or wireless connection in accordance with an IP or a device address of the sampled PCM digital signal **[IP address, see *Id.*; and inherently, a Mobile IP (MIP) address which will contain the home agent and visiting agent addresses encapsulated in the MIP packet, and therefore, the call can be determined to be wire or wireless]; and**

transmitting the sampled PCM digital signal to an internet phone main unit when the call is from the wired connection **[IP calls go to the internet telephone because gateway 300 supports internet telephony, col. 19, lines 20-21]** or transmitting the sampled PCM digital signal to the PCI module when the call is from the wireless connection **[it necessarily goes to wireless interface module 345 via interconnect bus 360, as explained above, to a wireless telephone or wireless LAN, col. 17, lines 6-9].**

17. With regard to claim 16, Kung et al. discloses that it is possible to communicate with each internet phone independently by routing of a network CPU unit when there are several internet phones and an independent IP address is allocated to the each internet phone in the transmitting step for transmitting the IP packet to the internet phone corresponding to the specified IP address **[this is inherent since gateway 300 discloses supporting multiple IP voice packets and multiple internet (digital) telephones wherein multiplexes/de-multiplexes (routing using IP Processing module 316 (Fig. 3, P5 IP), col. 17, line 34) these streams and delivering them to the correct internet telephones; see also 24-41].**

18. With regard to claim 17, Kung et al. discloses that setting up the call further comprises inputting the audio signal transmitted through the IP network through a network interface pack in a packet format **[transceiver 302, col. 17, lines 59-61]** as a packet format **[DOCSIS frames, which have encapsulated IP packets, col. 23, line 64 to col. 24, line 6].**

Art Unit: 2664

19. With regard to claim 18, Kung et al. discloses a method for originating a call by using an internet phone comprising:

pressing a certain keypad of a PSTN set as a default in a network CPU module by a user or selecting an internet phone in a menu on a LCD screen by a user [Fig. 3, interactive display 338, col. 19, lines 55-61];

inputting an IP address of the other party [DOCSIS and IP tunneling using an intercom group, or extension transfers/internal caller ID for 'simulated' work environment (interpreted as pulled from a LCD menu), col. 18, lines 40-60];

originating a call by setting up a VOIP-related protocol by the inputted IP address [using MGCP, SIP, or H.GCP via transceiver 302, col. 17, lines 54-61 further using IP Processing module 316 (Fig. 3, P5 IP), col. 17, line 34]; and

selecting a function extending unit for interfacing function packs performing an independent function respectively with a network CPU unit PC [each processor may be an entirely separate processing unit with it's own RAM, ROM and flash memory, col. 19, lines 23-26; multiple PCs connected to gateway 300; and gateway 300 may also be divided into more than one physical package, col. 22, lines 2-7; *see also* Fig. 3, peripheral processor 314, (P4 Aux.) performs special processing functions such as numeric processing (col. 19, lines 13-15)].

Art Unit: 2664

20. With regard to claim 19, Kung et al. discloses accessing the internet using a network CPU unit through a network interface pack [**transceiver 302, col. 17, lines 59-61**] when a user requests the internet contact [**cable TV using the cable internet connection, *see Id.***]; and displaying data received at a network interface pack on a TV through a graphic-sound pack by using an execution program of the network CPU unit or listening to the data with an audio unit [**Fig. 3, TV Port Module 336 for displaying cable television, col. 16, lines 28-30 and 59-61; *see also* using a set top box, col. 24, line 56 to col. 25, line 9**].

21. With regard to claims 20 and 21, Kung et al. discloses displaying or listening process comprises the step of: outputting all inputted/outputted signals [**digital feed, col. 24, line 58**] to an additional CPU pack through a PCI bus through recognition of an additional CPU pack of a function extending unit as a destination IP address of an IP header by the network CPU unit [**set top box which receives a regular, non-specific IP address, digital feed from gateway 30, col. 24, lines 56-59; or a specific IP address, premium television feed such as, e.g., pay-per-view, col. 25, lines 4-5**] when the bandwidth of transmitted data is wide [**e.g., movies on demand, col. 25, lines 4-7**].

Response to Arguments

22. Applicant's arguments filed May 23, 2005 have been fully considered but they are not persuasive.

23. Applicant states that Kung teaches processors electrically connected to the processor bus and integrated into the broadband connection system [**Applicants Amendment dated May 23, 2005, page 10, lines 26-32**]. Applicant then argues that amended claim 1 is “novel over the disclosure in Kung” because “Kung fails to teach, suggest, or disclose...providing extended computational power depending on the needs of the load device, such as video games or other user application.” [**See *Id.*, page 11, lines 2-4**]. Applicant provides the same reasoning for claim 18 [**See *Id.*, page 11 line 32 to page 12, line 3**].

24. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., electrically connected processors; and “providing extended computational power”) are not recited in rejected claims 1 or 18. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

25. Applicant states that amended claim 14 recites “determining whether the call has a wired or wireless connection in accordance with an IP...address of the...signal.” **[Applicant’s Amendment dated May 23, 2005, page 11, lines 17-19]**. Amended claim 14 recites “transmitting sample PCM digital signals to an internet phone main unit when the call is from the wired connection [and...to the PCI module when the call is from the wireless connection].” Applicant argues that this claim language necessarily means that the decision-making process between wired and wireless phones is absent from Kung et al. **[See Id., page 11, lines 22-26]**. However, as noted for claim 14 above, Kung et al. discloses that wired IP calls go to the internet telephone because gateway 300 supports internet telephony **[Kung et al., col. 19, lines 20-21]**. Kung et al. further discloses that wireless calls go through a wireless interface **[See Id., Fig. 3, wireless interface module 345]** for wireless phones **[See Id., wireless phones, LANs, col. 17, lines 6-9]**. Thus, it is inherent that such a decision-making process is present. Moreover, Applicant, apparently, argues that it is not possible to determine whether an incoming IP (or MIP) packet came from a wired or wireless connection. It is inherent that an IP (and/or MIP) packet will give the details of whether the packet originated from a wired or wireless connection by virtue of the origination/sender’s address.

26. Applicant argues that, for amended claim 19, Kung et al. fails to disclose using a network CPU to access the internet upon user request **[Applicant’s Amendment dated May 23, 2005, page 12, lines 7-11]**. However, as noted above for claim 19, Kung et al. discloses cable TV using the cable internet connection **[Kung et al., col. 17, lines 59-61.]**.

Art Unit: 2664

27. Applicant further argues that, for amended claim 19, that Kung et al. fails to request an internet contact independent of any request from the network CPU [**Applicant's Amendment dated May 23 , 2005, page 12, lines 11-13**]. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., requesting internet contact independent of network CPU request) are not recited in rejected claim 19. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

28. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

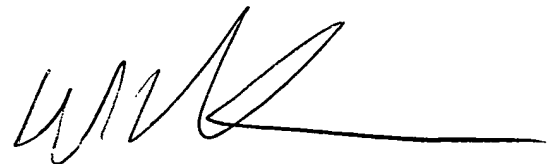
29. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Mais whose telephone number is (571) 272-3138. The examiner can normally be reached on 6:00-4:30.

31. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

32. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 8, 2005



WELLINGTON CHIN
SENIOR PATENT EXAMINER